

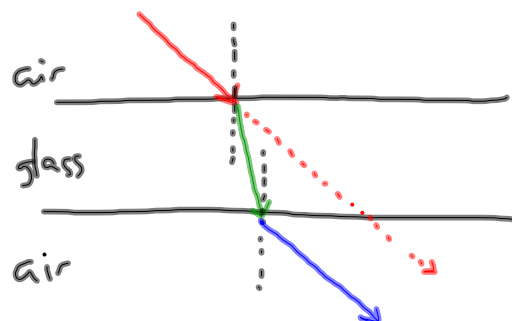
Things when light hits something:

1. Transmitted
2. Reflected
3. Absorbed

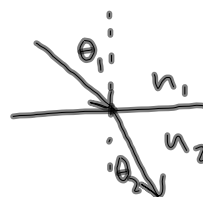
- Every medium has an index of refraction.

$$n = \frac{c}{v} \rightarrow \begin{array}{l} c \rightarrow \text{speed of light in vacuum} \\ v \rightarrow \text{speed of light in medium} \end{array}$$

- Refraction  $\rightarrow$  bending of light based on a change of medium
  - light going from higher  $n$  to lower  $n$ , ray bends away from normal
  - light going from lower  $n$  to higher  $n$ , ray bends towards the normal



- Snell's Law:



$$n_1 \sin \theta_1 = n_2 \sin \theta_2$$

## Phase Changes:

- When wave travels from lower  $n$  to higher  $n$ , then phase of wave changes by  $180^\circ$